

Fereshte Khani

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- EDUCATION
- ◇ Ph.D. in Computer Science, Stanford University, Stanford, CA, USA (2016 - present)
 - ◇ M.S. in Electrical Engineering and Computer Science, Massachusetts Institute of Technology, Cambridge, MA, USA (2013 - 2016)
 - ◇ B.S. in Computer Engineering, Sharif University of Technology, Tehran, Iran (2009 - 2013)
- RESEARCH INTERESTS
- ◇ **Fairness:** Understanding the reasons for the differences in a models performance across protected groups, how these performance gaps can be measured, and how these gaps are affected by feedback loops.
 - ◇ **Robustness:** Obtaining robust models that do not rely on spurious correlations and that work well across a variety of distribution shifts.
 - ◇ **Reliability:** Building reliable models that provide guarantees for their predictions. To this end, I have been focusing on selective classification.
- HONORS AND AWARDS
- ◇ Enhancing Diversity in Graduate Education (EDGE) Doctoral Fellowship, 2016-present.
 - ◇ **Ranked 3rd** in the Asia Regional ACM-ICPC Contest, Iran, 2010.
 - ◇ **Silver Medal** in International Olympiad in Informatics (IOI) 2009, Plovdiv, Bulgaria.
 - ◇ Selected as **Outstanding Student** by the university president, 2009.
 - ◇ Selected as a national scientific elite and the recipient of the grant for undergraduate studies from the Iranian National Elites Foundation, for the outstanding academic success, 2009 - 2013.
 - ◇ **Gold Medal** in Iranian National Olympiad in Informatics (INOI), 2008.
 - ◇ Awarded winter school grant from Institute Of Theoretical Computer Science And Communications (ITCSC), **Chinese University of Hong Kong**, Hong Kong, January 17-21 2011.
- PUBLICATIONS
- ◇ **Khani F.**, Liang P., *Removing Spurious Features can Hurt Accuracy and Affect Groups Disproportionately*, ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT), 2021.
 - ◇ Sang M., Kumar A., Jones R., **Khani F.**, Ma T., Liang P., *In-N-Out: Pre-Training and Self-Training using Auxiliary Information for Out-of-Distribution Robustness*, International Conference on Learning Representations (ICLR), 2021
 - ◇ **Khani F.**, Liang P., *Feature Noise Induces Loss Discrepancy Across Groups*, International Conference on Machine Learning (ICML), 2020.
 - ◇ **Khani F.**, Raghunathan A., Liang P., *Maximum Weighted Loss Discrepancy*, Safe Machine Learning Workshop, International Conference in Learning Representation (ICLR), 2019.
 - ◇ **Khani F.**, Goodman N.D., Liang P., *Planning, Inference and Pragmatics in Sequential Language Games*, Transactions of the Association for Computational Linguistics (TACL), 2018.
 - ◇ **Khani F.**, Rinard R, Liang P., *Unanimous prediction for 100% precision with application to learning semantic mappings*, Association for Computational Linguistics (ACL), 2016.
 - ◇ **Khani F.**, *Learning precise partial semantic mappings via linear algebra*, MSc. dissertation thesis, 2016.
 - ◇ **Khani F.**, Hosseini M.J., Abin A.A, Beigy H. *An Algorithm for Discovering Clusters of Different Densities or Shapes in Noisy Data Sets*, ACM Symposium on Applied Computing (ACM SAC), 2013.
 - ◇ **Khani F.**, *Density Based Clustering*, BSc. dissertation, 2012.

- RESEARCH
INTERNSHIPS
- ◇ **Summer internship at Google**, Summer 2014.
Worked in Google translate team supervised by Mark S. Miller and Peter Hawkins.
Technical report: *While loops in declarative programming languages*
 - ◇ **Summer internship at CUHK** , Summer 2011.
Worked in Institute of Network Coding, supervised by Prof. sidharth Jaggi.
Technical report: *Using small-capacity links to combat byzantine attacks*
- TEACHING
AND WORK
EXPERIENCE
- ◇ Teaching Assistant for Machine Learning, Stanford, Summer 2020, Fall 2020.
 - ◇ Member of the Scientific Committee, Computer Vision Workshop, Department of Computer Engineering, Sharif University, Tehran, Iran, July 2-5 2012.
 - ◇ Teaching Assistant for Data Structure (2011), Artificial Intelligence (2011), and Design of Algorithm (2012), Sharif University of Technology.
 - ◇ Lecturer in Summer Math Camp , Farzanegan Highschool, 2007 - 2013
Introducing students to the basics of problem solving strategies in graph theory, number theory and combinatorics.
 - ◇ Teaching students for Iranian National Olympiad in Informatics (INOI), 2009 - 2011
Teaching students who want to prepare for the third level of INOI. The subjects are programming with C++ and design and analysis of algorithms.
 - ◇ Contest Designer of Iranian National Olympiad in Informatics (first round), 2011.
- SERVICES
- ◇ Co-Moderator in Women in Data Science (WiDS) Conference (NLP breakout), 2017.
 - ◇ Stanford CS PhD representative at Grace Hopper conference, 2017.
 - ◇ Reviewer for NeurIPS (2018, 2019), ICML (2019), ICLR (2019, 2020), ALT (2019).
 - ◇ Stanford computer science admission committee, 2018.
- SKILLS
- ◇ Language skills: Persian (native), English (fluent), Arabic (reading knowledge).
 - ◇ Programming Languages: Python, C++, Java.
 - ◇ Web/DB Technologies: HTML, CSS, MySQL, Node, Java Script.
 - ◇ Typesetting : $\text{T}_{\text{E}}\text{X}$, $\text{L}_{\text{A}}\text{T}_{\text{E}}\text{X}$, Microsoft Word.